detected varies with each surface and can be readily determined by one of ordinary skill in the art.

[0036] The "tap" required by existing touch pads to input an "enter" or "select" command or select a programmable zone on the surface of the touch pad requires a specific duration as well as a sufficient surface area (or "z-value") registering the contact to function correctly. Unlike the "tap" required by existing touch pads to select a programmable zone, the "touch" permitted by the current invention registers contact within the programmable zone 29 and inputs the command regardless of the duration of the contact. In other words, the current invention registers the "touch" contact and inputs the command upon contact, or substantially upon contact, thereby simulating a mechanical button, whereas existing touch pads input the command not upon contact, but upon release and only if the "touch" is held throughout a timing requirement duration within a window of time established within the system; not too long, not too short. Thus, the programmable zones 29 of the current invention respond to any "touch" with sufficient z-value as defined by the programming without a timing requirement. It is also preferable that the relative positioning zone 27 be programmed so as to not be capable of relaying an "enter/select" command. This means that it is preferred that the "taps", which are used to actuate the "enter/select" command with many touch pad surfaces, not function to actuate the "enter/select" function on a touch pad with an "enter/select" zone 29. By creating a touch pad 21 which relays an "enter/select" command only when the "enter/select" zone 29 is touched, operators is less likely to mistakenly make a selection.

[0037] "Touch" capability is particularly useful in a touch pad because both novice and expert touch pad users may quickly and easily learn and perform operations using the simplified device without the being required to first master the "tap" timing of a given touch pad. It is also contemplated that the "touch" capacity of the programmable zones 29 may alternatively be programmed to respond only to "touches" which are of a sufficiently long duration, for example a duration longer than the "tap" duration required by existing touch pads. By requiring an extended "touch", unintentional "touches" can be more easily avoided.

[0038] A "touch" is preferably detected by the touch-sensitive surface 26 when a user's finger either actually touches the surface 26, or comes close enough to the surface 26 to indicate such an intention, although the surface can be programmed to respond otherwise by one of skill in the art. The enter/select zone 29 of the current embodiment is preferably substantially congruous with the contiguous relative positioning zone 27 and programmed so that a finger "gliding" from the relative positioning zone 27 through an absolute positioning programmable zone 29 will not register as a "touch" within the zone, but rather will be treated as if it simply glided across another part of the relative positioning zone 27. However, if a finger not presently in contact with the touch pad surface touches within, or comes near enough to the surface 26 for the surface to detect a "touch", an "enter/select" command will be communicated to the host computer (not shown). It is contemplated that the enter/select zone 29 may be programmed to relay other commands, and that multiple enter/select zones programmed with other functions may also be placed on the touch sensitive surface to simulate mechanical buttons. Although it is preferable to avoid mechanical buttons due to problems

inherent in mechanical buttons for many applications, it is contemplated that this device may also embody mechanical buttons in addition to simulated mechanical buttons.

[0039] In addition to the "touch" rather than "tap" nature of the invention simulating mechanical buttons, for durability and applicability, the touch pad 21 is preferably protected by a transparent cover plate 31 which overlays and preferably extends beyond the boundary 33 of the touch pad 21; thus the width and length of the cover plate 31 should correspond to, or exceed that of the touch-sensitive surface 26. The cover plate 31, although it is most preferably formed of glass for durability and cosmetics, may be also preferably be formed of a polymer such as polycarbonate, or polyester and bonded or adhered to the touch-sensitive surface 26 where less durability is required. The thickness of the cover plate 31 will vary with the type of touch pad 21 used because different touch pads use different technologies, each having different tolerances. However, one of skill in the art can calculate the allowed maximum dimensions for a cover plate 31 used with a given touch pad 21. For the touch pad technology disclosed by Gerpheide in U.S. Pat. No. 5,305,017, however, for a durable, reliable system the cover plate 31 is preferably within the thickness range of 0.0254 to 0.1016 centimeters (0.01 inches to 0.07 inches). The cover plate 31 thickness, however, may be increased or decreased depending on the level of protection versus reliability of response desired for a given application. The cover plate 31, although preferably affixed to the kiosk face plate 35 by adhesive, may alternatively be affixed by screws or equivalent means. Since many touch pads exist which require actual finger contact with the surface of the touch pad for operation, and with which a cover plate would render the touch pad inoperable, it is contemplated that a cover plate is only preferable for protection in certain embodiments, and not required by the invention.

[0040] By bringing a finger, or other conductive object, near the surface of the touch pad 21 and moving it within the touch pad boundary 33, an operator can navigate a cursor 37 shown on the monitor 25 (also called a "display"). To select a function shown on the monitor 25, an operator navigates the cursor 37, using the relative cursor positioning zone 27, to a place on the monitor 25 corresponding to a desired function, often indicated by a graphical symbol 39 (or "icon"). An operator then selects the function by bringing a finger, or other conductive object near or in contact with the touch pad's touch-sensitive surface 26 within the enter/select zone 29. One particular advantage of using a touch pad to select objects rather than a touch screen with such a system is that it enables smaller screen icons 39 to be selected than with a touch screen. Because the cursor 37 can be programmed to appear as small as needed, and select objects as small as needed, even large fingers can select small or densely spread icons 39 using a touch pad.

[0041] FIG. 2 depicts a preferred touch pad enclosure 41 which completely seals the touch pad 21 from external contamination. The enclosure 41 comprises a base 43 sized and shaped to contain the touch pad 21 and any related components 45 (see FIG. 4). The touch pad 21 is disposed within the base 43 which also preferably comprises an inset ridge 47 for seating the touch pad 21 and a lip 49 upon which a cover 51 and cover gasket 53 are disposed to seal the enclosure 41. An optional cover plate 31 is preferably placed between the cover gasket 53 and the touch pad's touch-